ABSTRACT OF THE DISCLOSURE

Method and apparatus for implementing multi-time scale adaptive routing in an IP network are described. One embodiment is a packet router that supports multi-time scale resource management. The packet router comprises a management agent that manages differentiated services policy information database operable to store policies on forwarding packets in the packet router; a resource server system that controls forwarding of packets in the packet router based on adaptive selections of policies from the policy information database; a flow measurement system that monitors packet flows through the packet router and generates statistic reports which affect the resource server systems selection of control; and a hardware forwarding engine that receives and forwards packets in response to the resource server system controls.